

Amendments to the Claims

1. (Canceled).
2. (Canceled).
3. (Canceled).
4. (Canceled).
5. (Canceled).
6. (Canceled).
7. (Canceled).
8. (Canceled).
9. (Canceled).
10. (Currently amended): The method of ~~claim 1~~ for generating an aerosol comprising the steps of:
 - (a) heating a physiologically active compound to vaporize at least a portion of said compound; and
 - (b) mixing the resulting vapor with a gas, in a ratio, wherein the ratio of vapor to gas is controlled by regulating the gas at a desired rate, monitoring the gas flow rate and stopping energy transferred to said compound during step (a) in the event the desired flow rate is not maintained, to form a desired particle size when a stable concentration of particles in the gas is reached.

11. (Previously presented): The method of claim 10 further comprising using an annunciating signal to alert a patient if said compound is not being vaporized.

12. (Currently amended): The method ~~of claim 4 wherein said compound is moved in~~ for generating an aerosol comprising the steps of:

(a) moving a physiologically active compound into a heating-vaporization zone during step (a) and heating the compound to vaporize at least a portion of said compound; and

(b) mixing the resulting vapor with a gas, in a ratio, wherein the ratio of vapor to gas is controlled by regulating the rate of vaporization, and wherein the vaporization rate is controlled by changing the rate said compound is moved into the zone, to form a desired particle size when a stable concentration of particles in the gas is reached.

13. (Original): The method of claim 11 wherein the ratio of vapor to gas is controlled by regulating the gas flow to a maximum flow rate and stopping the compound from being vaporized in step (a) if a minimum flow rate is not maintained.

14. (Canceled).

15. (Currently amended): The method ~~of claim 1~~ for generating an aerosol comprising the steps of:

(a) heating a physiologically active compound to vaporize at least a portion of said compound, wherein said compound is vaporized at a temperature below the boiling point of said compound by passing a gas across the surface of said compound; and

(b) mixing the resulting vapor with a gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached.

16. (Canceled).

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27. (Canceled)..

28. (Canceled).

29. (Currently amended): The method of claim 14 wherein for generating an aerosol comprising the steps of:

(a) depositing a thin film of a physiologically active said compound is deposited on onto a said substrate prior to heating and

(b) sweeping a said gas is swept across the film;

(c) heating said compound to vaporize at least a portion of the compound;

and

(d) mixing the resulting vapor with a gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached.

30. (Canceled).

31. (Original): The method of claim 29 wherein said compound is heated by moving said substrate through an alternating magnetic field to inductively heat the substrate.

32. (Original): The method of claim 31 wherein said substrate is a metallic foil.

33. (Original): The method of claim 32 wherein said substrate is a stainless steel foil.

34. (Original): The method of claim 29 wherein said substrate has a low thermal conductivity value.

35. (Original): The method of claim 33 wherein said compound is deposited onto said stainless steel foil at a thickness of no greater than about 10 microns.

36. (Canceled).

37. (Original): The method of claim 31 wherein the alternative magnetic field is maintained less than about 1MHz.

38. (Original): The method of claim 31 wherein the frequency of said field is maintained between about 100 and about 300 kHz.

39. (Previously presented): The method for generating an aerosol comprising the steps of:

(a) depositing a thin film of a physiologically active compound onto a substrate

(b) heating the physiologically active compound to vaporize at least a portion of said compound by moving said substrate through an alternating magnetic field to inductively heat the substrate, wherein the shape of said alternating magnetic field is controlled by a ferrite core; and

(c) mixing the resulting vapor with a gas that is swept across the thin film, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached.

40. (Original): The method of claim 39 wherein said substrate has a plurality of sections that are heated sequentially.

41. (Original): The method of claim 40 wherein said ferrite core has a saturation value such that by changing the drive frequency and amplitude the resulting magnetic field expands to sequentially heat each of said sections and to vaporize the respective portions of said compound.

42. (Original): The method of claim 41 wherein said ferrite core has a variable air gap so that the resulting magnetic field expands to sequentially heat each of said sections and to vaporize the respective portions of said compound by varying the shape of said air gap of said ferrite core.

43. (Original): The method of claim 42 wherein the ferrite core is a toroid shape with a slit cut through it.

44. (Canceled).

45. (Canceled).

46. (Canceled).

47. (Canceled).

48. (Previously present): The method for generating an aerosol comprising the steps of:

(a) heating a physiologically active compound, contained in a heating-vaporization zone having a restricted cross-sectional area, to vaporize at least a portion of said compound,

(b) mixing the resulting vapor rapidly with a gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached; and

(c) maintaining a pressure drop of restricted gas flow at no greater than 10 inches of water.

49. (Previously presented): The method for generating an aerosol comprising the steps of:

(a) heating sequentially a physiologically active compound by changing the focus of photon energy in the vicinity of said compound to vaporize at least a portion of said compound; and

(b) mixing the resulting vapor with a gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached.

50. (Previously presented): The method for generating an aerosol comprising the steps of:

(a) depositing a physiologically active compound on a substrate having a plurality of sections that are heated sequentially;

(b) heating said compound to vaporize at least a portion of said compound;

and

(c) mixing the resulting vapor with a gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached.

51. (Original): The method of claim 50 wherein each of said sections is heated with photon energy.

52. (Original): The method of claim 50 wherein each of said sections is heated with resistive heaters.

53. (Original): The method of claim 50 wherein each of said sections is heated by inductive means.

54. (Canceled).

55. (Canceled).

56. (Original): The method for delivering an aerosol to a patient comprising the steps of:

- (a) depositing a physiologically active compound onto a substrate;
- (b) sequentially heating parts of said compound to vaporize at least a portion of said compound;
- (c) simultaneously mixing the resulting vapor with a gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached; and
- (d) administering the resulting aerosol to a patient.

57. (Original): The method of claim 56 wherein said compound is deposited onto a thermally conductive substrate that is heated by transmitting a thermal energy gradient from one part of said substrate to other parts.

58. (Canceled).

59. (Canceled).

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61. (Canceled).

62. (Canceled).

63. (Canceled).

64. (Canceled).

65. (Original): The method for delivering an aerosol to a patient comprising the steps of:

(a) sequentially heating parts of a physiologically active compound to vaporize at least a portion of said compound;

(b) simultaneously mixing the resulting vapor with a gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached; and

(c) administering the resulting aerosol to a patient.

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122. (Canceled).

123. (Canceled).

124. (Previously presented): The method for generating an aerosol comprising the steps of:

(a) depositing a physiologically active compound onto an electrically conductive mesh or screen carrier; and

(b) rapidly heating the carrier by passing a high current across the carrier to vaporize at least a portion of the compound, while simultaneously passing a gas through the

carrier thereby mixing the resulting vapor with the gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached.

125. (Original): The method of claim 124 wherein the carrier is a single layer of stainless steel mesh.

126. (Original): The method of claim 124 wherein the carrier is made of multi layers of material.

127. (Original): The method of claim 126 wherein the stainless steel mesh is 200 mesh.

128. (Original): The method of claim 124 wherein the high current in step (b) is supplied by the discharging of a capacitor.

129. (Original): The method of claim 124 wherein the current supplied is for less than about 20 milliseconds.

130. (Original): The method of claim 124 wherein the current supplied is from between about 2 and about 10 milliseconds.

131. (Canceled).

132. (Canceled).

133. (Canceled).

134. (Canceled).